

memorandum

Date: October 24, 2005

Subject: Approval to Proceed with Preparation of an Engineering Evaluation/Cost Analysis (EE/CA) for the Final Decommissioning and Dismantlement of TAN-630/TAN-650 (Loss of Fluid Test Complex) at the Idaho National Laboratory (INL) Site (FMDP-RFDP-05-117)

To: Idaho Cleanup Project CERCLA Administrative Record File

Background:

This memorandum initiates the process for final decommissioning and dismantlement of TAN-630 and TAN-650 (both signature facilities) at the Loss of Fluid Test (LOFT) complex area, located at Test Area North (TAN) in the northeast portion of the Idaho National Laboratory (INL) Site. Issuance of this memorandum identifies use of Non-Time Critical Removal Action (NTCRA) authority, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.), as amended by the "Superfund Amendments and Reauthorization Act of 1986 (SARA)" (Public Law 99-499), and in accordance with the "National Oil and Hazardous Substances Pollution Contingency Plan" (40 CFR Part 300), as the regulatory pathway for final decommissioning activities. This action is consistent with the joint U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) *Policy on Decommissioning of Department of Energy Facilities Under the Comprehensive Environmental Response, Compensation, and Liability Act* (DOE and EPA 1995), which establishes the CERCLA non-time-critical removal action process as an acceptable approach for decommissioning and dismantlement. This memorandum also opens an administrative record for information supporting selection of the general decommissioning and dismantlement methodology and end-state condition.

TAN was originally built to support the Aircraft Nuclear Propulsion Program (ANPP) sponsored by the U.S. Air Force and the U.S. Atomic Energy Commission. The LOFT facility was commissioned for construction in 1962 at the former site of the ANPP Flight Engine Test facility. Construction of the LOFT complex was completed in 1973 where experiments were conducted on a small-scale version of a pressurized water reactor in the facility from 1976 to 1985. The LOFT project emulated, on a small scale, the principal features of a commercial nuclear reactor to investigate a loss-of-coolant accident. The LOFT project was completed in 1985 and inactivation began in 1986, including removal of the reactor vessel itself. In 1988, the test chamber was used as a containment area for the D&D of the HTRE-3 test engine.

Threat to Public Health, Welfare, or the Environment:

The potential contaminants of concern (COCs) for the LOFT Complex NTCRA consist of radionuclides. RCRA closure activities, that were completed in April 2005, removed the major threat to human health and the environment due to RCRA constituents. The LOFT Complex may pose a future threat to human health and the environment if current engineering and administrative controls cease and the buildings' infrastructures are allowed to deteriorate to the

point where contaminants could be released to the environment. The CERCLA OU 1-10 Record of Decision (ROD)¹ established remedial action objectives (RAOs) for cleanup of contaminated soils at TAN.

If no action were taken, failure to provide surveillance and maintenance activities at LOFT could result in eventual deterioration of the structures and release of radionuclides to the environment such that RAOs for the area may not be met.

Past Regulatory Activity:

The buildings, structures, and utility systems associated with LOFT have not been identified as release sites or potential release sites under the Federal Facility Agreement and Consent Order (FFA/CO). However, several areas of soil contamination have been investigated in the vicinity of LOFT, and remedial actions have been addressed in the OU 1-10 ROD.

The Voluntary Consent Order (VCO) between DOE-ID and the Idaho Department of Environmental Quality (IDEQ) required the characterization of various systems at LOFT and disposition of any hazardous waste associated with those systems, pursuant to the Idaho Hazardous Waste Management Act (HWMA) and the federal Resource Conservation and Recovery Act (RCRA). VCO characterization activities identified the need to close the TAN-650 LOFT Containment Sump System. VCO closure activities were conducted in accordance with the VCO Action Plan.

Other Deactivation, Decontamination, and Dismantlement (DD&D) activities at the LOFT facility have included demolition of the stack (TAN-725), removal of materials containing hazardous constituents, and asbestos abatement. Closure of underground storage tanks and the septic system are ongoing.

Proposed Project:

An Engineering Evaluation/Cost Analysis (EE/CA) will be performed to evaluate suitable alternatives and to provide cost estimates for the NTCRA. The selected alternative for the LOFT Complex DD&D will be described in an Action Memorandum that will incorporate regulatory agency and public comments. The EE/CA and Action Memorandum will be subject to the CERCLA Community Relations Plan² requirements for stakeholder notifications and involvement.

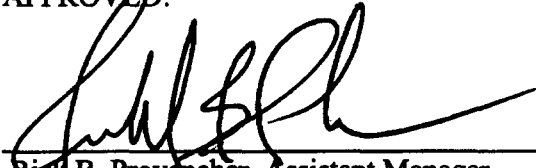
¹ DOE/ID-10682, December 1999, *Final Record of Decision (ROD) for Test Area North (TAN) for Operable Unit (OU) 1-10 at the Idaho National Engineering and Environmental Laboratory (INEEL)*.

² DOE/NE-ID-11149, February 2004, *Community Relations Plan, A Guide to CERCLA Public Involvement in the Cleanup Program at the INEEL*.

Approval to Conduct Engineering Evaluation and Cost Analysis (EE/CA):

Approval is hereby given by DOE-ID to conduct an EE/CA for the decommissioning of the LOFT facility. Robert M. Shaw is designated as the spokesperson. The completed EE/CA shall be made available for public review and comment.

APPROVED:



Rick B. Provencher, Assistant Manager
Idaho Cleanup Project

10/20/05
Date

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RECORD NOTES:

1. This memo approves initiation of the CERCLA administrative record file for an Engineering Evaluation and Cost Analysis (EE/CA) for the LOFT complex (TAN-630/650)
2. This memorandum was prepared by N. Jensen in coordination with J. Cooper and Don Rasch. ^{J.A.C.}
3. This letter/memo closes OATS number N/A
4. The attached correspondence has no relation to the Naval Nuclear Propulsion Program.